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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/734,006

12/10/2003

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EXAMINER

MATZEK, MATTHEW D

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/734,006	<b>Applicant(s)</b> REICHMANN ET AL.	
	<b>Examiner</b> MATTHEW D. MATZEK	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 10-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 10-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Response to Amendment***

1. The amendment dated 12/27/2007 has been fully considered and entered into the Record. Claims 6-9 have been cancelled. Amended claims 1, 13, 14, 25 and 26 contain no new matter. Claims 1-5 and 10-28 are currently active. The amendment of claims 1, 25 and 26 to include the limitation of the second polymer comprising a poly-alphaolefin overcomes the previous rejections made over Matsui et al. and Matsui et al. in view of Ryan et al.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-3 and 10-28 are rejected under 35 U.S.C. 103(a) as being obvious over Matsui et al. (US 6,174,602 B1) in view of Fletcher et al. (US 2002/0111596 A1).

a. Matsui et al. disclose a biodegradable fiber excellent in bulkiness, softness, stretchability and feeling, which comprises **A** a low heat-shrinkable fiber component, and **B** a high-heat shrinkable fiber component comprising an aliphatic polyester, which is a mixture of aliphatic polyesters with differing melting points (abstract). The **B** component comprises at least two aliphatic polyesters **H** and **S**; the difference in melting point between them is at least 20°C (col. 19, lines 16-19). The soft aliphatic polyester **S** is amorphous (col. 31, lines 12-14). The hard aliphatic polyester **H** may comprise 90-10 weight percent of the **B** polymeric composition and the soft aliphatic polyester **S** may comprise 10-90 weight percent of **B** (col. 17, lines 1-13). The applied invention may be used to produce a nonwoven fabric (col. 4, lines 1-10). L-lactide is used as the aliphatic polyester (col. 8, lines 5-15). The nonwoven web of the applied invention may be a

spunbond nonwoven web (col. 9, lines 35-40). Figures 1C and 1G illustrate multi-component embodiments wherein at least a portion of an outer surface of the multi-component fibers comprises the polymer blend. The applied invention may be used in a number of different articles such as undergarments, clothing, etc. and may be used in all of the claimed structures because the applied invention possesses the claimed structure (col. 11, lines 40-45). The applied invention may be in either staple fiber or continuous filament form (col. 9, lines 36-50).

b. Matsui et al. and Ryan et al. are silent to the use of a poly-alphaolefin, but both references teach the use of poly-caprolactone. Fletcher et al. teaches material suitable for a flushable absorbent assembly and teaches the use of amorphous poly-alphaolefin or a poly-caprolactone [0078]. Therefore, because these two polymers were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the poly-caprolactone taught by Matsui et al. for poly-alphaolefin.

c. Matsui et al. do not specifically disclose the claimed structures of instant claims 16-22, but the applied invention may be used in a number of different articles such as undergarments, clothing, etc. and may be used in all of the claimed structures because the applied invention possesses the claimed structure (col. 11, lines 40-45).

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui et al. (US 6,174,602 B1) in view of Fletcher et al. (US 2002/0111596 A1) as applied to claim 1 above, and further in view of Ryan et al. (US 6,506,873 B1). Matsui et al. teach the use of

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lactides, which comprise isomers, but fails to teach what type of lactide and the quantity of the lactide (col. 8, lines 5-20).

a. Ryan et al. relates to nonwoven fibrous material, which includes a plurality of polylactide containing fibers (Abstract and col. 1, lines 16-17). The nonwoven can have utility in medical, hygiene, disposable and durable nonwoven applications where biodegradability can advantageously be combined with a fabric or laminate function. Some applications are diapers, training pants, and feminine absorbent articles, among others (col. 3, lines 28-38). The preferred fibers include at least one component, polylactide or polylactic acid (PLA). The reference teaches multi-component fibers that include at least one component based upon polylactide and at least one additional component, which may be based upon polylactide or upon a material other than polylactide (col. 3, lines 56-67 through col. 4, lines 1-3). The reference teaches that preferred meltstable polylactide compositions preferably include a D-lactide concentration of less than about 5% by weight (col. 16, lines 36-54). Among the polymers that can be used as other components in a multi-component fiber include polyolefins, polyamides, aromatic/aliphatic polyesters, biodegradable aliphatic polyesters and biodegradable aliphatic-aromatic polyesters (col. 10, lines 53-67). The reference also teaches the use of polycaprolactone (PCL), polyhydroxy propionate (or butylate, capreolate or valerate), among others (col. 11, lines 47-57). Fiber formation processes include melt spinning, melt blowing and spunbonding (col. 12, line 2 & col. 27, lines 1-2). The reference also teaches carding (col. 26, lines 50-52).

b. Since Matsui et al. and Ryan et al. are from the same field of endeavor (i.e. degradable aliphatic polyester fibers), the purpose disclosed by Ryan et al. would have been recognized in the pertinent art of Matsui et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Matsui et al. with the motivation of minimizing the D-lactide level to improve the polymer's ability to crystallize as disclosed by Ryan et al. (col. 16, lines 36-54).

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-6, 8-12 and 15-28 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's arguments filed 12/27/2007 pertaining to the rejection of claims 7, 13 and 14 have been fully considered but they are not persuasive.

6. Applicant argues that there is no motivation or suggestion to modify Matsui with Fletcher et al. The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). See also *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (setting forth test for implicit teachings); *In re Eli Lilly & Co.*, 902 F.2d 943, 14 USPQ2d 1741 (Fed. Cir. 1990) (discussion of reliance on legal precedent); *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988) (references do not have to explicitly suggest combining teachings);

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*Ex parte Clapp*, 227 USPQ 972 (Bd. Pat. App. & Inter. 1985) (examiner must present convincing line of reasoning supporting rejection); and *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993) (reliance on logic and sound scientific reasoning). As art recognized equivalents logic and sound scientific reasoning provides that it would have been obvious to substitute the poly-caprolactone taught by Matsui et al. for poly-alphaolefin, because both are directed to biodegradable products.

7. Applicant argues that Examiner has not provided support for why one of skill in the art would have read the Ryan et al. patent and been motivated to form degradable multi-component fibers having poly-alphaolefin as a component after reading the Fletcher et al. publication in which the poly-alphaolefin is described as a coating material. Further, the Examiner has not provided why one of skill in the art would have exchanged materials used to form a coating with materials used to form multi-component fibers. Examiner has relied upon Fletcher et al. to establish that in the field of bio-degradable articles poly-alphaolefin and poly-caprolactone are art recognized equivalents and as such it would have been obvious to have used them interchangeably.

8. Applicant argues that Examiner has failed to establish why one of ordinary skill in the art would have been motivated by Ryan et al. to form degradable multi-component fibers having poly-alphaolefin as a component after reading Fletcher et al. in which the poly-alphaolefin is described as coating a material. Examiner has relied upon Fletcher et al. to modify Matsui by establishing that it is well known in the art to substitute the poly-caprolactone taught by Matsui et al. for poly-alphaolefin in fibrous form. Examiner has relied upon Ryan to modify Matsui with the motivation of minimizing the D-lactide level to improve the polymer's ability to

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crystallize as disclosed by Ryan et al. (col. 16, lines 36-54). Examiner has not attempted to modify either Fletcher et al. or Ryan et al. with the other.

9. Applicant argues that Examiner has not provided motivation as to why one of ordinary skill in the art would have exchanged materials used to form a coating with materials used to form multi-component fibers. Examiner has relied upon Fletcher et al. to establish that in the field of bio-degradable articles poly-alphaolefin and poly-caprolactone are art recognized equivalents and as such it would have been obvious to have used them interchangeably.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW D. MATZEK whose telephone number is (571)272-2423. The examiner can normally be reached on M-F, 9-5:30.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571.272.1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew D Matzek/  
Examiner, Art Unit 1794

/Norca L. Torres-Velazquez/  
Primary Examiner, Art Unit 1794